

# Inventory Dashboard Demo – Overview

This interactive report provides a comprehensive view of inventory performance, stock movement, and fulfillment efficiency across locations and product categories. Built on Microsoft Fabric, the dashboard integrates semantic modelling, parameterized logic, dataflow Gen2 for the modelling and building the dimensionality, and real-time pipeline orchestration to deliver actionable insights.

All visuals are powered by the supporting Fabric Semantic Model, which exposes calculated KPIs, dynamic flags, and standardized metrics for scalable analysis.

This dashboard is part of a full-stack solution demonstrating my capability to design, orchestrate, and deliver scalable analytics across the Data Warehouse and Lakehouse landscape; from ingestion pipelines and semantic modeling, right up to real-time dashboards and CI/CD deployment.

## Key Features:

Feature Description:

### Dynamic KPI Selection (Field Parameters)

Users can toggle between KPIs such as Inventory Turnover, Stockout Rate, Overstock %, and Cycle Count Accuracy, enabling flexible focus without duplicating visuals. (*Page: KPI*)

### Calculated Flags & Thresholds

Metrics like StockoutFlag, ReorderFlag, and OverstockThreshold are dynamically computed to highlight operational risks. (*Page: Inventory Summary*)

### Simulated Metrics

Fields such as PhysicalCount, OrderShippedDate, Unit Cost, Unit Sold, and FulfillmentLag are simulated to enable full metric coverage and auditability. (*Page: Stock Tracking*)

### Semantic Model Measures

Measures like COGS, Inventory Value, and Days of Supply are standardized across visuals for consistent analysis. (*Pages: All*)

### Time Trend Analysis

Line and matrix visuals track inventory movement and turnover across time periods. (*Page: Stock Tracking*)

### Interactive Visuals

Slicers, drill-throughs, and tooltips allow deep exploration by Location, Product Category, and Time Period. (*Pages: All*)

### Map View

**Geo-Enabled Stock Tracking:** Integrated map visuals allow users to monitor inventory distribution across regions, with Drill-throughs to detailed product line stock levels for location-specific analysis.

### Bookmarks & Navigation

Predefined views enable seamless storytelling and toggling between analytical perspectives. (*Page: Introduction*)

### Custom Tooltips

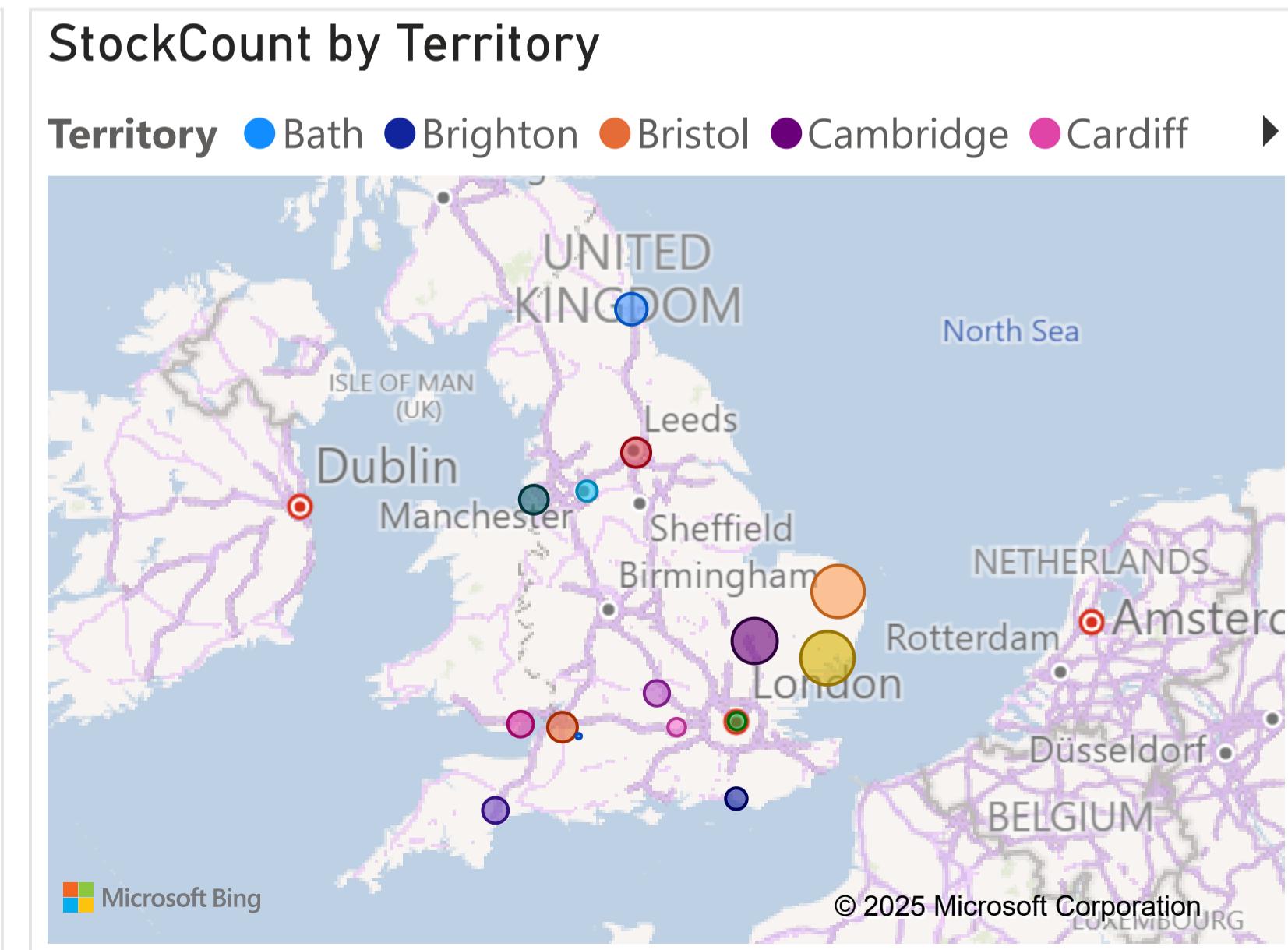
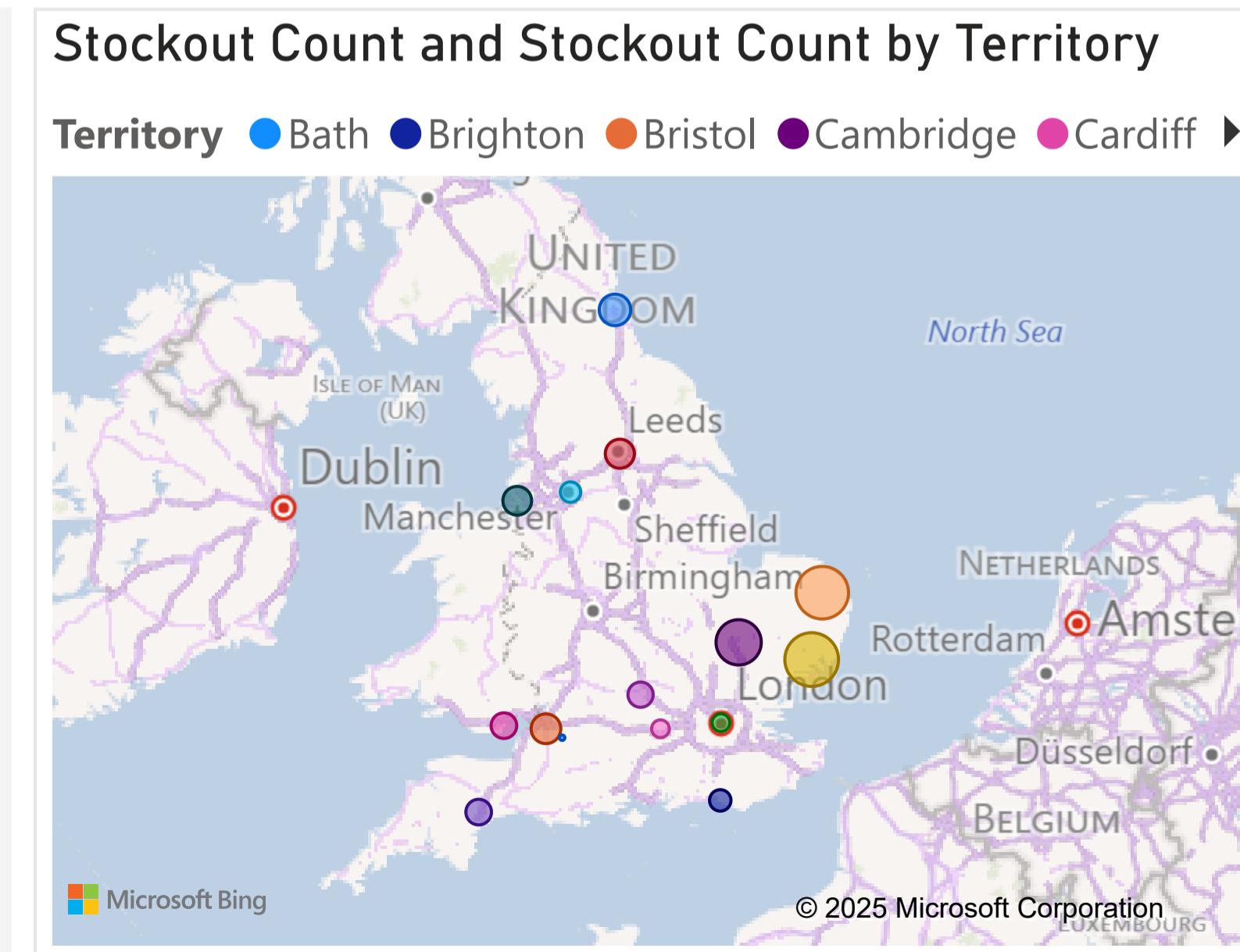
Toolips highlight metrics like Inventory Trends by Product Age and Fulfillment Lag, enhancing interpretability. (*Page: Introduction*)

### How to Use

- Select your **KPI** from the top slicer to update the **Card** and related visuals dynamically
- Use filters to explore specific locations, product categories, or time periods
- Hover over visuals for detailed insights via tooltips
- **Track** trends and performance with time series and scorecard visuals

## Inventory Summary

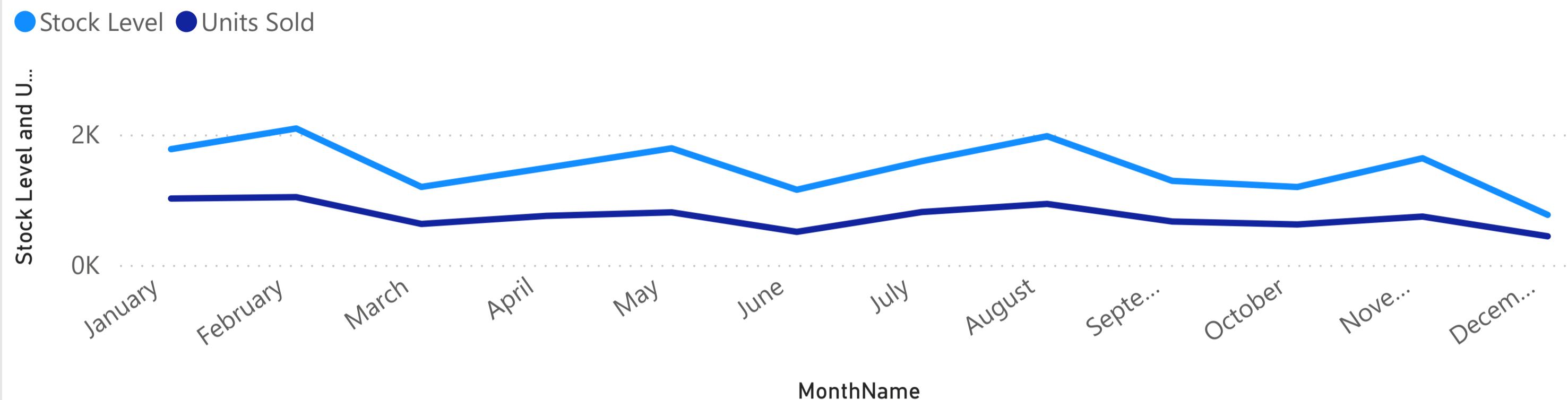
Category	Select all	Electronics	Hardware	Home	Office	Match Accuracy	Needs Restock	5000 StockCount
Supplier	Select all	Screwfix	Toolstation	Wickes	Over Stocked	Select all	No	62 Over Stock Count
						False		99.66% Avg Stock Accura...
						True		
Region	Category	Warehouse	ProductName	StockLevel	ReorderPoint	Stock_Out	Cycle Count Accuracy	IsOverstocked
				50	20	False	100.000%	
				50	22	False	100.000%	
				50	23	False	100.000%	
				50	25	False	100.000%	
				50	27	False	100.000%	



## Location Distribution



### Stock Level and Units Sold by MonthName



Warehouse	Product Name	Stock Level	Unit Cost	Unit Sold
WH2	Chair Pro	3281	360.00	2,296.70
WH2	Desk Lamp	2375	260.00	1,662.50
WH2	Gadget X	5669	760.00	2,267.60
WH2	Gadget Y	6399	780.00	2,559.60
WH2	Gadget Z	5627	700.00	2,250.80
WH2	Gizmo C	4398	1,800.00	2,638.80
WH2	Kit A	5605	360.00	2,522.25
WH2	Monitor Stand	2592	300.00	1,814.40
WH2	Tool Y	5130	345.00	2,308.50
WH2	Tool Z	6498	390.00	2,924.10
WH2	Widget A	2746	1,200.00	1,647.60

Territory	Oxford					
Category	System Count	Physical Count	Cogs	Order Fulfillment Time	Overstock Rate	OverstockScore
Electronics	9750	9711	292,500.00	4.49	0.52	2.02
P0023	146	145	4,380.00	6.00		1.87
P0039	64	62	1,920.00	3.00		1.78
P0050	84	84	2,520.00	4.00	1.00	2.10
P0066	150	150	4,500.00	3.00	1.00	2.05
P0131	156	155	4,680.00	4.00		1.81
P0239	53	54	1,590.00	5.00		1.83
P0257	135	134	4,050.00	6.00		1.71
P0277	133	132	3,990.00	4.00	1.00	2.38
P0541	139	140	4,170.00	3.00		1.81
P0698	100	101	3,000.00	5.00		1.89
P0719	108	107	3,240.00	6.00	1.00	2.51
P0736	78	79	2,340.00	3.00	1.00	2.23
P0756	189	188	5,670.00	5.00		1.75
P0759	187	186	5,610.00	4.00		1.87
P0774	133	131	3,990.00	7.00		1.71
P0777	95	95	2,850.00	3.00		1.76
P0840	191	189	5,730.00	5.00	1.00	2.30
Total	52926	52788	665,854.75	4.70	0.53	2.01

Warehouse	Product Name	Stock Level	StockOut Count	Lead Time Risk	Reorder
WH2	Tool Z	6498	False	False	False
WH2	Gadget Y	6399	False	False	False
WH2	Gadget X	5669	False	False	False
WH2	Gadget Z	5627	False	False	False
WH2	Kit A	5605	False	False	False
WH2	Tool Y	5130	False	False	False
WH2	Gizmo C	4398	False	False	False
WH2	Chair Pro	3281	False	False	False
WH2	Widget A	2746	False	False	False
WH2	Widget B	2606	False	False	False
WH2	Monitor Stand	2592	False	False	False
WH2	Desk Lamp	2375	False	False	False
WH2			False	False	True
<b>Total</b>		<b>52926</b>	<b>False</b>	<b>False</b>	<b>False</b>

# Stock Tracking & Cost Performance

Year, QuarterLabel, MonthName, Date

2024

Stock Level Tracking

Select all    Balanced    Overstock    Understock

Restock Urgency

Select all    High    Normal

**15.29**

Inventory Turnover    321,131.00

Inventory Qty

**0.0**

Stockout Rate    24.0

Over Stocked

### Cycle Count Accuracy by MonthName and Warehouse

Warehouse ● (Blank) ● WH1 ● WH2 ● WH3 ● WH4

MonthName	WH1	WH2	WH3	WH4
January	99.787%	99.75%	99.65%	99.787%
February	99.787%	99.75%	99.65%	99.75%
March	99.787%	99.8%	99.75%	99.81%
April	99.75%	99.75%	99.75%	99.75%
May	99.75%	99.81%	99.65%	99.81%
June	99.75%	99.5%	99.75%	99.81%
July	99.75%	99.75%	99.81%	99.75%
August	99.65%	99.65%	99.55%	99.65%
September	99.75%	99.75%	99.81%	99.81%
October	99.81%	99.75%	99.75%	99.75%
November	99.81%	99.81%	99.65%	99.75%
December	99.81%	99.85%	99.81%	99.81%

### Stock Level Vs Units Sold by Warehouse

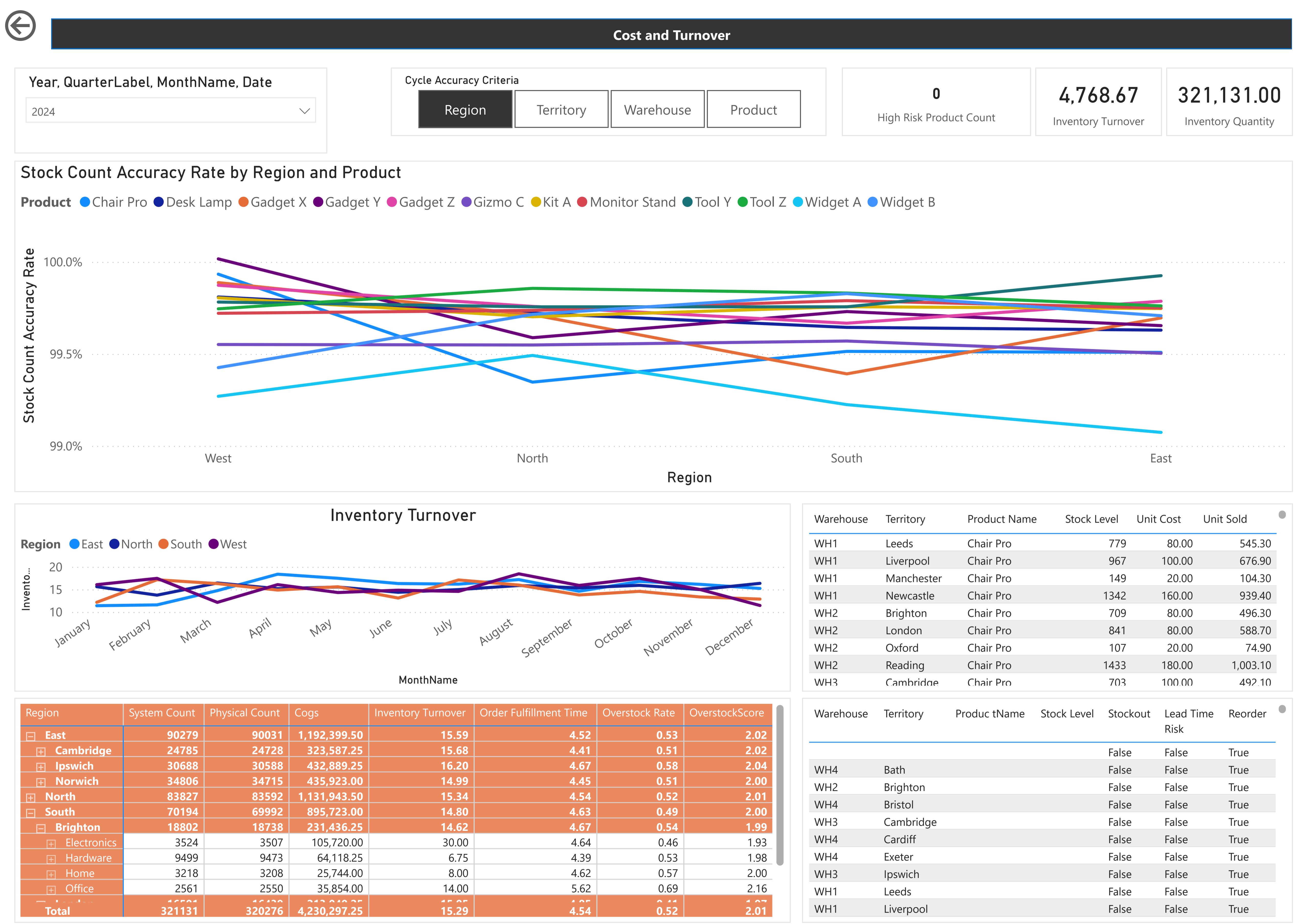
● Stock Level    ● Unit Sold

Warehouse	Stock Level (%)	Unit Sold (%)
WH3	66.51%	33.49%
WH1	66.33%	33.67%
WH4	66.19%	33.81%
WH2	66.36%	33.64%

Region	Territory	Category	ProductName	System Count	Physical Count	Tracing Accuracy	Tracking Status
East	Cambridge	Electronics	Gizmo C	321	321	100.00%	Balanced
East	Cambridge	Electronics	Widget A	143	143	100.00%	Balanced
East	Cambridge	Electronics	Widget B	502	502	100.00%	Balanced
East	Cambridge	Hardware	Kit A	843	843	100.00%	Balanced
East	Cambridge	Hardware	Tool Y	770	770	100.00%	Balanced
East	Cambridge	Hardware	Tool Z	1545	1545	100.00%	Balanced
East	Cambridge	Home	Gadget X	115	115	100.00%	Balanced
East	Cambridge	Home	Gadget Y	376	376	100.00%	Balanced
East	Cambridge	Home	Gadget Z	478	478	100.00%	Balanced
East	Cambridge	Office	Desk Lamp	427	427	100.00%	Balanced
East	Ipswich	Electronics	Gizmo C	754	754	100.00%	Balanced
Total				321131	320276	100.00%	Balanced

Warehouse	Product Name	Stock Level	Unit Cost	Unit Sold
WH1	Chair Pro	3237	360.00	2,265.90
WH2	Chair Pro	3090	360.00	2,163.00
WH3	Chair Pro	3360	440.00	2,352.00
WH4	Chair Pro	3755	400.00	2,628.50
WH1	Desk Lamp	4872	600.00	3,410.40
WH2	Desk Lamp	3892	420.00	2,724.40
WH3	Desk Lamp	5558	540.00	3,890.60
WH4	Desk Lamp	4782	500.00	3,347.40
WH1	Gadget X	7480	860.00	2,992.00

Warehouse	Product Name	Stock Level	Stockout	Lead Time Risk	Reorder
WH1	Chair Pro	3237	False	False	True
WH2	Chair Pro	3090	False	False	True
WH3	Chair Pro	3360	False	False	True
WH4	Chair Pro	3755	False	False	True
WH1	Chair Pro	3237	False	False	False
WH2	Chair Pro	3090	False	False	False
WH3	Chair Pro	3360	False	False	False
WH4	Chair Pro	3755	False	False	False
	Desk Lamp		False	False	True



Region	Supplier	Territory	Cogs ▼	Stock Count	Stockout Rate
East	Screwfix	Ipswich	396,902.25	161	0.00
East	Screwfix	Norwich	344,263.25	152	0.00